AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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IN THE SPECIFICATION

Please amend the specification as follows:

[0039] Equation (III) presents the new Modified ~~Jeffery~~ Jeffrey's divergence measure, which is greatly simplified. The divergence measure is an unbiased estimate as shown in the counter example below.

[0037] To model the incoming distribution (hereinafter referred to as "the incoming dist."), g, two assumptions are introduced to simplify the formulations:

⇨ $\bar{\mu}_g = \bar{x}(t)$;   The mean vector of the incoming dist is set to be equivalent to the incoming measurement. This is similar to the earlier approach.

⇨ The variance depends upon the current distribution variance, our hypothesis, i.e. σ_g^2 is a scalar of σ_i^2, or $\sigma_g^2 = \alpha_i \sigma_i^2$ where α_i is a dependency scalar.

[0027] The OC sets the conditions in the D_1 150 and D_2 160 decision blocks, which directs the input and output data to the appropriate processing modules. The D_1 decision block directs the input video frame to a decompression module 175, HSMD sub-module 180, or the No Op module 165. The D_2 decision block directs the output video frame from stage one to a HPMD sub-module 185 or the No Op module 170. The rules in setting the D_1 and D_2 blocks are:

- HSMD is selected after initialization startup.
- When the HSMD module detects motion, HPMD is selected.
- The HPMD module requires periodical updates. When the update time is reached, the HPMD module will be selected.
- When the HSMD module does not detect motion and the HPMD module [[doe]] <u>does</u> not need update, the No Op module in the second stage will be selected.
- When the HPMD module detects motion in the $(n-1)^{th}$ frame, Decompression module will be selected in the nth frame if the video in 140 is compressed.
- When the decompression module is selected, the HPMD module will also be selected.
- When a skip frame decision is made, both No Op modules will be selected.